

sion was almost maniacal. This condition of the breast has been ascribed by some writers to the influence of irregular and painful menstruation. The menstruation of the patient was of such unhealthy character. The enlargement differs from the normal physiological swelling of the breasts at time of menstruation simply in its much greater size and its being accompanied with pronounced and well developed hysterical manifestations.

4. *Hysteria of Saint Theresa*.—Continuation of article begun in preceding number. STRAUSS (New York).

ARCHIVES D'ELECTRICITE MEDICALE.

(1902, No. 15, July.)

1. The Electrolytic Treatment of Xanthelasma. P. PAUSIER.

2. A Study of Galvano-Faradisation. CLUZET.

3. How Should the Electric Treatment be Applied in Basedow's Disease, and What Results can be Expected? M. MALLY.

4. The Electric Treatment of Infantile Paralysis; A Clinical Study. E. ALBERT-WEIL.

5. The Laws that Determine the Opacity of Different Antiseptic Powders to X-rays. DARCOURT.

1. *Treatment of Xanthelasma*.—A description of two cases of xanthelasma which were successfully treated by the author, who employed for the active negative electrode several needles introduced into the diseased areas of skin. After five or six applications of a current of from 6 to 10 M. A. the patches completely disappeared.

2. *Galvano-Faradisation*.—A lengthy, detailed paper in which galvano-faradisation is studied in its physical, physiological, and therapeutical aspects. The author concludes that galvano-faradisation, thanks to the combination of the motor, electrotonic, and catalytic actions of the composite currents, presents real advantages over galvanism or faradism used individually.

3. *Electrical Treatment of Basedow's Disease*.—After discussing the various clinical forms of exophthalmic goiter and the various symptoms calling for the application of special currents, the author summarizes as follows: "(1) Electricity in all its forms can be of use in the treatment of Basedow's disease. (2) We have endeavored to show that a rational electric treatment is conceivable which is adaptable to every form of Basedow's disease. It consists, in fact, of constantly taking into consideration the general and symptomatic state of the patient; a univocal treatment of Basedow's disease would be nonsensical therapeutics. (3) Static electricity can be used to advantage on patients with sluggish nutrition. In the opposite condition this agent is not tolerated, and its employment may cause harm. (4) Faradism may be used to combat individually all the morbid symptoms of Basedow's disease: dilatation of the carotids, thyroid hypertrophy, exophthalmos, muscular paresis, and tachycardia. Its judicious employment always produces a diminution, at least momentary, of the distressing symptoms; intolerance is never noticed. (5) Galvanism is more restricted in its application; this form of electricity, whose efficacy is not doubtful, can be used in certain cases, alone or in combination with faradism.

4. *Treatment of Infantile Paralysis*.—In this article the author describes his method of treatment of anterior poliomyelitis and gives the results obtained in twenty cases, some very recent and others of long standing. The method recommended is to employ in the immediate post-febrile period a mild descending stable current, using a broad electrode on the back and suitable sized vessels filled with water as electrodes for the paralyzed extremities. At the end of the third week a rhythmically interrupted galvanic current is to be used and as soon as the regenerating muscles respond to faradism, that form of current is to be used.

5. *Opacity of Antiseptic Powders to X-rays.*—The author summarizes his results as follows: (1) Compound substances that contain a simple substance of high atomic weight are opaque to X-rays. (2) The higher the atomic weight of the simple body, the greater the degree of the opacity. (3) For compounds that contain the same simple substance of high atomic weight, but in different proportions, the opacity is directly proportionate to the percentage of the simple substance present.

R. H. CUNNINGHAM.

(115, 1902, August.)

1. On the Present State of Electrodiagnosis. J. CLUZET.
2. A New Example of the Numerical Application of the General Laws Governing the Transparency of Matter to X-rays. L. BENOIST.
3. The Action of Continuous Currents on Sclerotic and Cicatricial Tissues. STÉPHANE LEDUC.
4. On Electro-Diagnosis upon the Bared Nerve in Man. J. BÉRGONIE.
5. An Historical Sketch of Electro-Therapy. E. ALBERT-WEILL.

1. *State of Electrodiagnosis.*—A long detailed paper unsuitable for abstraction. The author, however, considers that the method of exploration by means of condenser discharges yields the best results and is the method to employ in electrodiagnosis.

2. *Transparency of Matter to X-rays.*—A short paper correlating the results of Dr. Darcourt (see the July abstract) with those previously published by the author, from which, by means of a given formula, the opacity of various substances to X-rays can be readily calculated.

3. *Action of Continuous Currents.*—After relating in detail his results in six patients with cicatrices, giving rise to more or less deformity and disability, the author attributes the beneficial action to the fact that continuous currents in passing through the organism give rise to a double current of ions, the hydrogen, metals and metallic radicles descending with the current, and the hydroxyl, OH, and the acid radicles ascending with the current. The therapeutic action is undoubtedly due to the production of these movements.

4. *Excitation of Bared Nerves in Man.*—On certain occasions it becomes necessary to make an absolutely definite diagnosis and prognosis in disease of or injury to peripheral nerves, and owing to difficulty of doing so when the nerve is excited through the overlying skin and other tissues, the author recommends exposing the nerve and stimulating in the usual manner employed by the physiologist. He concludes:

"(1) It is easy to investigate the state of the irritability of a nerve exposed during operative intervention. (2) This research gives the most valuable indications regarding the diagnosis and the prognosis. (3) Inexcitability determined in this way points to a very grave prognosis."

R. H. CUNNINGHAM.

(1902, 116, September.)

1. On Accidents due to X-rays. ONDIN (de Paris).
2. International Congress of Electrology and Radiology held at Bern, September 1-6, 1902.

1. *X-Ray Accidents.*—In this extensive paper occupying thirty-three pages, Dr. Ondin presents a very thorough account of the pathology and treatment of radio-dermatitis in its acute and chronic forms. As regards the treatment practically nothing has been found so far that prevents the development of the burn after prolonged exposure. The author considers that the X-rays alone produce the dermatitis and that metallic screens merely protect in accordance with their transparency to X-rays. To protect his own hands the author uses fencers' gloves, containing a padding of fine brass wire.

R. H. CUNNINGHAM.

(1902, 117, October.)

1. The Influence of the Galvanic Current upon Muscular Force. SCHNYDER.
2. The Production of Sleep and of Local and General Anesthesia by Intermittent Low-Tension Currents. STÉPHANE LEDUC.
3. A New Form of the Electrolytic Interrupter.
4. Radioscopy and Radiography of the Abdominal Organs. A BÉCLÈRE.
5. On Surgical Electrolysis and Galvano-Cautistics. TH. GUILLOZ.

1. *Galvanism and Muscular Force*.—From his results the author concludes that "Voltaic electrification of the vertebral column exerts a favorable influence upon muscular force, which is manifested less by the increase in work expressed in kilogrammeters than by the modifications produced in the form of the fatigue curves. By the greater number of ordinates and by their more gradual descent, the S-like form of the curve very strongly points to the preceding fact. But this favorable influence upon muscular force is produced not by electric stimulation only. Another stimulus, acting under similar conditions, such as a sinapism, has nearly the same influence upon muscular force."

2. *Production of Sleep, etc.*—An experimental research upon the lower animals in which the negative electrode is applied to the head and the broad positive to the back. A very rapidly interrupted continuous current of an E. M. F. of 16-30 volts is applied for a short time, the voltage being rapidly reduced. The author finds that it is possible to produce by interrupted low tension currents painless, instantaneous and complete inhibition of the cerebral hemispheres in animals, while the respiratory and circulatory centers are unaffected. Thus one produces a quiet and regular sleep that can be prolonged for several hours, and a general and complete anesthesia. Sleep occurs or disappears rapidly accordingly as the circuit is closed or opened. No after-effect follows the sleep. Prolonged and repeated sleep produces no apparent change in health.

3. *Electrolytic Interrupter*.—An illustrated description of a modified Wehuett interrupter for use with alternating currents.

4. *Radioscopy of Abdominal Organs*.—A lengthy detailed paper devoted to the radioscopy and radiography of all the various organs of the abdomen and thorax. The author concludes that the X-ray method of examination constitutes an exceptional means for the investigation of the nervous system, a very valuable method for the abdominal organs which is particularly applicable for finding urinary calculi, and is a very admirable method for the physical examination of the thoracic organs. It is destined to rank in current practical medicine with auscultation and percussion, and to occupy in time a more important place.

5. *On Electrolysis*.—A lengthy paper unsuitable for abstraction, that discusses electrolysis in its physical aspects and in its therapeutical applications.

R. H. CUNNINGHAM.

MISCELLANY.

REPORT OF A CASE OF PROGRESSIVE MUSCULAR ATROPHY (SPINAL) WITH MENTAL SYMPTOMS. R. Edward Garrett (Maryland Med. Jour., Oct., 1902).

Subject of report female, fifty-three years old. Patient for seven months at Maryland Hospital for the Insane. Symptoms at date of admission not sufficiently marked to justify positive diagnosis of progressive muscular atrophy. Has chronic nephritis. No hereditary predisposition. No luetic nor rheumatic history. Slight transitory pains about chest and shoulders. Case one of "upper arm type" with pronounced atrophy of muscles of trunk, particularly of arms, shoulders and chest. No changes observed in the legs. Feet and ankles edematous. Protrusion of head for-